WALD et al. Appl. No. 09/719,055 use of PCT/GB99/01828:

(U.S. National Phase of PCT/GB99/01828; Int'l. Filing Date: June 9, 1999)

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application. Please amend the claims as follows:

- 1. (currently amended) A method of predicting the risk of pre-eclampsia in a pregnant woman, the method comprising the steps of:
 - (a) obtaining a sample of blood from the woman;
 - (b) subsequently assaying the sample for the levels of free β -human chorionic gonadotrophin (free β -hCG), and Inhibin A and unconjugated oestriol (uE₃) present in the sample; and
 - (c) determining the risk of pre-eclampsia using the measure measured levels of free β -human chorionic gonadotrophin (free β -hCG), Inhibin A, and unconjugated oestriol (uE₃) present in the sample.
 - 2. (cancelled)
- 3. (previously presented) A method as claimed in claim 1, in which the method is carried out after 20 weeks of pregnancy.
- 4. (currently amended) A method as claimed in claim 3, in which the method is carried out at the end of the second trimester and the beginning of the third trimester.

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5. (previously presented) A method as claimed in any of claims 1, 3 or 4, in

which the determination of risk in step (c) is undertaken by comparing the levels of free β-

human chorionic gonadotrophin (free β-hCG), Inhibin A and unconjugated oestriol

(uE₃) present in the sample with those in a control sample.

6. (original) A method as claimed in claim 5, in which the determination of risk

comprises deriving the likelihood ratio using a multivariate analysis based on distribution

parameters from a set of reference data.

7. (original) A method as claimed in claim 6, in which the multivariate analysis

is a multivariate Gaussian analysis.

8. (currently amended) A method as claimed in claim 7, in which the estimation

of risk consists of multiplying the likelihood ratio ration by the background risk for pre-

eclampsia.

9. (currently amended) A method as claimed in any one of claims 1 or 3 to 8,

the method further comprising a step (d) of re-expressing each measured screening marker

level the measured levels of β -human chorionic gonadotrophin (free β -hCG), Inhibin A, and

unconjugated oestriol (uE₃) as a multiple of the median level of the measured levels,

respectively, of β-human chorionic gonadotrophin (free β-hCG), Inhibin A, and

unconjugated oestriol (uE₃) the respective screening marker in unaffected pregnancies of

the same gestational age as the fetus of the pregnant woman.

10. (currently amended) A method as claimed in claim 9, in which the measured levels of β -human chorionic gonadotrophin (free β -hCG). Inhibin A, and unconjugated oestriol (uE₃) screening marker levels are adjusted to allow for one or more factors selected from the group of maternal race, maternal weight, multiple birth and diabetic status.

- 11. (previously presented) An apparatus for determining whether a pregnant woman is at an increased risk of pre-eclampsia, the apparatus comprising:
 - (a) data input means for inputting a measurement of the serum levels of Inhibin A, free β-human chorionic gonadotrophin (free β-hCG) and unconjugated oestriol (uE₃) in a sample obtained from said pregnant woman; and
 - (b) calculation means for determining the risk of pre-eclampsia using the input levels of the serum markers Inhibin A, free β-human chorionic gonadotrophin (free β-hCG) and unconjugated oestriol (uE₃).

12. (cancelled)

13. (previously presented) An apparatus as claimed in claim 11, in which the calculation means is arranged to determine the risk of pre-eclampsia by deriving the likelihood ratio for pre-eclampsia using a multivariate analysis based on distribution

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parameters derived from a set of reference data.

14. (original) An apparatus as claimed in claim 13, in which the multivariate

analysis is a multivariate Gaussian analysis.

15. (previously presented) An apparatus as claimed in any one of claims 11, 13

or 14, in which the apparatus further comprises (c) means for re-expressing the levels of

each input screening marker as a multiple of the median level of the respective screening

marker in unaffected pregnancies of the same gestational age as the fetus of the pregnant

woman and supplying the re-expressed screening marker levels to said calculation means.

16. (previously presented) A kit for predicting the onset of pre-eclampsia in a

pregnant woman, comprising means for assaying a sample from the woman for the levels

of free β -human chorionic gonadotrophin (free β -hCG), Inhibin A and unconjugated oestriol

(uE₃) present in the sample.

17. (cancelled)